

IN THE CLAIMS

1. (Amended) A mixer/flow conditioner comprising:
at least three successive partitions defining at least two gaps therebetween;
and
means within each gap defining a plurality of passages, at least one passage in each gap [being] having an orientation with a tangential component having a magnitude greater than zero so as [oriented] to impart a tangential velocity component to a packet of fluid flowing [passing] therethrough;
wherein the tangential component magnitudes [the at least one passages cooperate to] cause the packets of fluid exiting the at least one passages to interact to create [convert an initial flow stream into] a final flow stream having a swirl number less than about 0.2
2. (Original) The mixer/flow conditioner of claim 1 wherein the means within each gap for defining a plurality of passages is a corrugated strip.
3. (Original) The mixer/flow conditioner of claim 1 wherein the swirl number is less than about 0.03.
4. (Amended) The mixer/flow conditioner of claim 1 wherein the swirl number is less than about 0.02.
5. (Original) The mixer/flow conditioner of claim 1 wherein the plurality of passages each have an exit defining a hydraulic diameter and a length and the passages within an individual gap have an equal length to hydraulic diameter ratio.

6. ~~(Re-presented formerly dependent claim 6)~~ ~~The A mixer/flow conditioner comprising:~~
at least three successive partitions defining at least two gaps therebetween;
means within each gap defining a plurality of passages,
~~of claim 5 wherein the passages in adjacent gaps have orientations that adopt~~
different directional rotations ^{of what?} ~~whereby the passages in one gap impart a clockwise swirl and the passages in the other gap impart a counter-clockwise swirl.~~

Not claim 6
in independent form
w/ improving claims -
not amended
properly

7. (Original) The mixer/flow conditioner of claim 5 wherein the orientation of the passages within an individual gap are identical.

8. (Amended) The mixer/flow conditioner of claim 7 6 wherein the passages in adjacent gaps have orientations that are opposite each other whereby the passages in one gap impart a clockwise swirl and the passages in the other gap impart a counter-clockwise swirl.

9. (Amended) The mixer/flow conditioner of claim 5 wherein [all the] each passage[s have] has a[n] tangential orientation greater than zero.

10. (Original) The mixer/flow conditioner of claim 1 wherein the partitions are approximately concentric.

AM 11. (Original) The mixer/flow conditioner of claim 10 wherein there are at least 6 gaps.

12. (Original) The mixer/flow conditioner of claim 10 wherein adjacent gaps act as pairs.

13. (Amended) The mixer/flow conditioner of claim 1 wherein the orientation of the passages is less than about 80 degrees relative to [the] a central axis.

14. (Original) The mixer/flow conditioner of claim 13 wherein the orientation of the passages in two adjacent gaps defines an included angle between 15 and 60 degrees.

15. (Amended) The mixer/flow conditioner of claim 13 wherein each of the passages has a length and an exit defining a hydraulic diameter, and the passages have[ing] a length to hydraulic diameter ratio less than about 10.

16. (Original) The mixer/flow conditioner of claim 15 wherein the length to hydraulic diameter ratio is greater than about 0.5.

17. (Cancelled)

18. (Amended) A mixer/flow conditioner for conditioning comprising:
at least two partitions defining a gap;
at least two corrugated strips positioned in the gap, each corrugated strip
defining a plurality of passages, [each] at least one of the passages on
each corrugated strip having an orientation with a tangential
component having a magnitude greater than zero, said orientations on
each corrugated strip adopting different directional rotations; and
wherein
the at least two passages cooperate[ing] to cause packets of fluid passing
therethrough upon exiting to interact to produce a swirl number less than 0.2.

19. (Original) The mixer/flow conditioner of claim 18 wherein the swirl
number is less than 0.03.

20. (Original) The mixer flow conditioner of claim 19 wherein the swirl
number is less than 0.02.

21. (Amended) The mixer/flow conditioner of claim 18 wherein [the plurality
of] each passage[s each have] has an exit defining a hydraulic diameter and a length
and the passages within an individual gap have an equal length to hydraulic
diameter ratio.[.]

22. (Re-presented-formerly dependent claim 22) A mixer/flow conditioner for
conditioning comprising:

at least two partitions defining a gap;

at least two corrugated strips positioned in the gap, each strip defining a
plurality of passages.

[The mixer/flow conditioner of claim 21] wherein the passages [in adjacent
gaps] formed by adjacent corrugated strips have orientations that are
opposite each other [whereby the passages in one gap impart a
clockwise swirl and the passages in the other gap impart a counter-
clockwise swirl].

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23. (Amended) The mixer/flow conditioner of claim 22 wherein [the gaps] the passages formed by each corrugated strip are concentric.

24. (Amended) The mixer/flow conditioner of claim 23 wherein the [gaps] passages act in pairs.

25. (Amended) The mixer/flow conditioner of claim 24 wherein the orientation [of adjacent gaps] of the passages formed by one corrugated strip are opposite the orientation of the passages of the other corrugated strip [is opposite one to the other] and the sum of the angular momenta of [the] packets of fluid exiting the passages [of adjacent gaps are] is equal to about zero.

26. (Original) The mixer/flow conditioner of claim 25 wherein there are at least 6 gaps.

27. (Amended) The mixer/flow conditioner of claim 18 wherein the orientation associated with each corrugated strip is less than about 80 degrees relative to [the] a central axis.

28. (Original) The mixer/flow conditioner of claim 27 wherein the orientation of two adjacent gaps defines an included angle between 15 and 60 degrees.

29. (Original) The mixer/flow conditioner of claim 27 wherein each passage has an exit defining a hydraulic diameter and a length, and the length to hydraulic diameter ratio is less than 10.

30. (Original) The mixer/flow conditioner of claim 29 wherein the length to diameter ratio is greater than 0.5.

31. (Original) The mixer/flow conditioner of claim 30 wherein the orientation of the passages within a gap are identical.

32. (Cancelled)